Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25 (canceled)

Claim 26. (new)   A method for receiving a data stream transmitted via at least one data transmission path comprising the steps of:

receiving the data stream with a receiver;

determining a power delay profile for the received data stream, the power delay profile indicative of peak values of received power in a plurality of transmission path positions;

detecting at least one peak value in the power delay profile with a peak detector;

determining a data transmission path profile based upon the at least one peak detected, the data transmission path profile comprising at least one shadow transmission path;

suppressing the at least one shadow transmission path in the data transmission path profile; and

setting data transmission paths in the receiver based upon the suppressed data transmission path profile.

Claim 27. (new)   The method of claim 26, wherein the step of determining a data transmission path profile comprises the step of:

counting the number of occurrences of detected peaks in the plurality of transmission path positions over a predetermined period;

comparing the number of occurrences counted to a predetermined threshold number of occurrences;

setting to zero each of the plurality of data transmission paths that do not exceed the predetermined threshold; and

determining a data transmission path profile based upon the plurality of data transmission paths that are not set to zero.

Claim 28. (new)   The method of claim 26, wherein the step of determining a data transmission path profile comprises the steps of:

storing the detected peaks from a predetermined number of power delay profiles;

summing the values of the stored detected peaks;

comparing the summed values to a predetermined threshold value; and

determining a data transmission path profile based upon the summed values exceeding the predetermined threshold value.

Claim 29. (new)   The method of claim 26, wherein the step of detecting at least one peak value comprises the steps of:

selecting a first threshold;

comparing peak power in the plurality of transmission path positions to the first threshold; and

detecting only peak power in each of the plurality of transmission path positions that is higher than the first threshold.

Claim 30. (new)   The method of claim 29, wherein the step of selecting the first threshold comprises the step of:

adaptively selecting the first threshold.

Claim 31. (new)   The method of claim 30, wherein the step of adaptively selecting the first threshold comprises the steps of:

determining the received signal strength of noise; and

setting the threshold based upon the determined received signal strength of noise.

Claim 32. (new)   The method of claim 30, wherein the step of adaptively selecting the first threshold comprises the steps of:

sorting the peak values in the power delay profile by peak power; and

setting the first threshold such that a predetermined number of peaks exceed the first threshold.

Claim 33. (new)   A receiver comprising:

a power delay profile determination unit operable to generate a power delay profile;

a peak value detection device, operably coupled to the power delay profile

determination unit and operable to detect peaks above a first threshold in a generated

power delay profile;

a data path determination unit operably coupled to the peak value detection unit

and operable to generate a data transmission path profile as a function of peaks detected

by the peak value detection device that are above a second threshold; and

a shadow transmission path filter operably connected to the data path

determination unit to filter shadow transmission paths from the data transmission path

profile.

Claim 34. (new)   The receiver of claim 33 further comprising:

a peak value sorting unit operably connected to the power delay profile

determination unit and operable to sort a generated power delay profile by peak power,

and wherein the first threshold is selected such that a predetermined number of peaks in a

generated power delay profile are detected by the peak value detection device.

Claim 35. (new)   A method of processing a received signal having power peaks

including noise signal peaks and data signal peaks, in a device comprising a peak detector

and a data path detector, the method comprising the steps of:

generating a delay power profile of the received signal in the form of peak values

for a plurality of transmission path delays;

setting in the peak detector a first threshold at a first power level;

detecting with the peak detector delay power profile peaks above the first threshold; and

determining a data transmission path profile representing at least one data transmission path based upon the peaks detected by the data path detector.

Claim 36. (new)   The method of claim 35, wherein the step of determining a data transmission path profile further comprises the steps of;

storing over a predetermined period of time detected peaks for a plurality of transmission path delays;

counting the number of stored detected peaks;

comparing the number of counted stored peaks to a predetermined threshold number; and

determining a data transmission path profile based upon the each of the plurality of transmission path delays that have a number of stored detected peaks that exceed the predetermined threshold number.

Claim 37. (new)   The method of claim 36, wherein the step of determining a data transmission path profile further comprises the steps of;

selecting a second threshold, the second threshold higher than the first threshold;

comparing the stored detected peaks for the plurality of transmission path delays that exceed the predetermined threshold number to the second threshold; and

determining a data transmission path profile based upon each of the plurality of transmission path delays that have a number of stored detected peaks that exceed the

predetermined threshold number and that have a peak value that exceeds the second threshold.

Claim 38. (new)   The method of claim 37, wherein the device further comprises a shadow transmission path filter, the method comprising the steps of:

determining the strongest at least one data transmission path;

determining a third threshold at a third power level based upon the strongest at least one data transmission path;

setting the third threshold in the shadow path filter; and

filtering shadow path transmission signals in the data transmission path profile with the shadow path filter.

Claim 39. (new)   The method of claim 35, further comprising the step of:

adaptively selecting the power level of the first threshold.

Claim 40. (new)   The method of claim 39, wherein the step of adaptively selecting the power level of the first threshold comprises the steps of:

determining the received signal strength of a noise signal; and

establishing the power level of the first threshold as a function of the noise signal received signal strength.

Claim 41. (new)   The method of claim 39, further comprising the steps of:

sorting the peaks in the power delay profile by power;

establishing a number of peaks to be detected by the peak detector;

comparing the sorted peaks with the established number of peaks to be detected;

and

selecting the power level of the first threshold based upon the comparison, such

that the peak detector detects the established number of peaks.

Conclusion

Applicant respectfully requests entry of the amendment and favorable

consideration of the application.

A prompt and favorable action on the merits is requested.

Respectfully Submitted,

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